

THE

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CHEMIST

VOLUME XXXVI



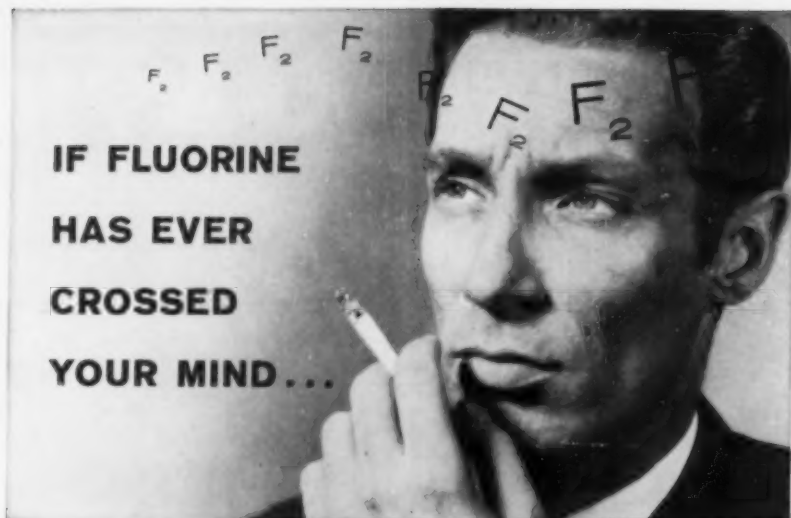
NUMBER 9



Dr. Arthur E. Wood

(center) receives Honor Scroll of Louisiana Chapter from Dr. Winston R. de Monsabert (right). On left Dr. Thomas D. Fontaine.

(See page 335)



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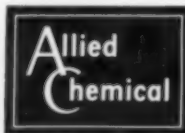
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Deadlines for THE CHEMIST: For the October issue the deadline is September 15.

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THE AMERICAN INSTITUTE OF CHEMISTS does not necessarily endorse any of the facts or opinions advanced in articles which appear in THE CHEMIST.

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TO COME IN OCTOBER

"Patents at the Cross Roads" is a condensation of a vivid, provocative talk presented at a joint meeting of the New England AIC Chapter and the Northeastern Section of the American Chemical Society, by Robert H. Rines, of Rines & Rines, Boston, Mass. The human interest story will be on Dr. R. P. Allard, chairman, Department of Chemistry, Loyola University, Los Angeles, Calif., who was honored by the Western AIC Chapter. Dr. Charles L. Thomas, F.A.I.C., of Sun Oil Co. reports on reorganizing R & E departments to further scientific careers. Postponed Annual Reports will appear.

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EDITORIAL

For More Professional Power, Cooperate with Committees

THE AMERICAN INSTITUTE OF CHEMISTS annually appoints Committees to consider various professional matters. These Committees report regularly to the National Council, where action can be taken on special recommendations. Some report directly to the AIC membership, through *THE CHEMIST*, to obtain individual opinions. All Committees report summaries of their activities at each Annual Meeting.

Nevertheless, the functions of some of our committees seem to be little understood. For example, it was brought to the attention of the Council at a recent meeting that some of our members do not know that personal problems involving employer-employee relationships may be sent, in confidence, directly to our Committee on Employer-Employee Relations, which considers them carefully and advises wisely. (The desire to preserve the anonymity of the inquirer has prevented this Committee from reporting on problems it has already solved successfully.)

Likewise, the Committee on Manpower may be consulted on such matters as current fields of opportunity; the problem of employment for those over 50; the qualifications sought by industrial management, and similar subjects.

There are still other ways in which AIC members can benefit themselves and the profession as a whole by communicating with our Committees. Many AIC members have personal experience, special knowledge, or sources of information which pertain directly to the subjects in which Committees (such as those on Legislation, Chapter Activities, AIC History, Clinical Chemistry, Public Relations, Ethics, and Professional Education) are interested. Such specially informed members should write to the specific committees to contribute information.

There is need, too, for new ideas from any member on any subject of Committee interest. And the Committee on Honorary Membership and the Committee on Gold Medal Award are happy to have nominations from the membership for consideration.

Moreover, every member can assist the Committee on Membership and the Committee on New Chapters and Expansion by sending in the name of friends who are qualified for AIC membership.

Our committees have given many hours of uncompensated work to professional matters. We are deeply indebted to them for aiding professional progress. We hope AIC members will increase our professional power by requesting aid when needed from

our Committees and by giving assistance to them whenever possible.

The Committees for the current fiscal year, as appointed at the recent Council Meeting, are:

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Dr. Milton Harris
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Dr. Wayne E. Kuhn

(Others to be announced)

Committee on Nominations

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Dr. Lloyd Van Doren
Martin B. Williams
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Dr. Walter S. Guthmann
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O. B. J. Fraser

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(Others to be announced)

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Dr. J. R. Bowman, co-chairman
(Members to be announced)

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O. B. J. Fraser
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Dr. Ray P. Dinmore

Special AIC Announcements

New Officers of the Chicago AIC Chapter

The Chicago Chapter has elected the following officers for the 1959-60 fiscal year:

Chairman, Dr. Walter S. Guthmann,
Morton Salt Bldg., 110 North Wacker
Drive, Chicago 6, Ill.

Chairman-elect, Dr. Austin B. Wilder,
E. I. duPont de Nemours & Co.,
1025 S. Wabash Ave., Chicago 5, Ill.

Vice-chairman, Leo A. Rauch, Schaar &
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Chicago 34, Ill.

Secretary, David W. Young, Sinclair
Research Labs., 400 East Sibley Blvd.,
Harvey, Ill.

Treasurer, Harry J. Pappas, The
Griffith Labs., Inc., 1415 West 37th
St., Chicago 9, Ill.

National Council Representative,
Bernard E. Schaar, M. R. Box 436,
Chesterton, Ind.

Chapter Councilors: Dr. John R. Bowman, The Technological Inst., Northwestern University, Evanston, Ill., and Dr. Edward A. Swakon, 7610 Maryland Ave., Hammond, Indiana.

Pennsylvania Chapter Appoints Committees

The Pennsylvania Chapter announces that it has appointed the following Committees for the 1959-60 fiscal year:

Dinner & Arrangements,
Dr. E. M. Kipp

Legal & Ethics, Dr. Victor Bellino

Technical Services Council Representative, Marcus Sittenfield

Program, Dr. E. M. Kipp

Publicity, Dr. Sidney Canto

Awards, Dr. Joel S. Harris

Membership, Dr. Ezra H. Bitcover

Alabama Chapter Committees

The Alabama Chapter announces that it has appointed the following Committees:

Program, Dr. Charles E. Feazel
Finance, Robert E. Lacey
Legislative, Woodford R. Thompson
Employment Service,
 Dr. Jack P. Montgomery
Fellowship, Wilbur A. Riehl, Roger C. Comer, Samuel L. Vance
Constitution, William P. McNutt, Bernard J. Alley, Dr. C. E. Feazel, Stephen F. Mulich
Student Medals, Dr. Kirby E. Jackson, Dean Robert A. Carter, Dr. W. S. DeLoach, Prof. W. J. Kennerly, Dr. James H. Langston, Dr. Clarence T. Mason, Dr. Paul Melius
Education, Gene A. Zerlaut, John A. Davis, William D. Guthrie, William P. McNutt, Wilbur A. Riehl, C. A. Ruckle, J. C. Vaughan, A. Melvin Wickle, Jr.
Publicity, Oscar L. Hurtt, Jr.
Radio & Television,
 Everett L. Huffman
Membership (Huntsville-Decatur Area)
 Billie Crew
Membership (Birmingham-Tuscaloosa Area) Arthur A. Rauber, Jr.
Membership (Auburn-Montgomery Area) Dr. Paul Melius
Membership (Mobile-Pensacola Area)
 Harry G. Sellers, Jr.
Representatives to Engineering Council of Birmingham: Dr. Charles E. Feazel, Oscar L. Hurtt, Jr., Martin B. Williams

AIC Social Hour

We hope to see you at the AIC Social Hour to be held Monday, September 14, 1959, at 5:30 p.m. in the West Room of the Claridge Hotel, Atlantic City, N. J. This event is scheduled as part of the American Chemical Society convention in Atlantic City.

New Officers for Ohio Chapter

The Ohio Chapter announces the election of the following officers:

Chairman, Dr. James D. D'Ianni,
 The Goodyear Tire & Rubber Co.,
 1144 East Market St., Akron 16, Ohio
Chairman-elect, John Dickenson, IV,
 The Harshaw Chemical Co.,
 1945 E. 97th St., Cleveland 6, Ohio
Secretary-Treasurer, Dale F. Behney,
 The Harwick Standard Chemical Co.,
 60 S. Seiberling St., Akron 5, Ohio
National Council Representative,
 Dr. David M. Gans, The Arco Co.,
 7301 Bessemer Ave., Cleveland 27,
 Ohio

The Public Determines How Science Progresses

I cannot escape the impression that the lay public has come to regard science much as the ancients regarded alchemy, but still expects it to perform a set of miracles which will save the world. I detect widespread impatience that these miracles do not happen right now. We have seen great swings in public attitudes toward science and scientists. Today the scientist is some sort of a hero . . . only a few years ago he was a dangerous egghead. These are indications of a vast scientific illiteracy on the part of the public . . . Such illiteracy is dangerous, because it is the public, not the scientists, who will eventually determine how science will progress.

—Gen. John E. Hull,

President,

Manufacturing Chemists' Assn.

When Should I Change Jobs?

Harrison C. Blankmeyer

Manager, Reinforced Plastics Development Laboratory, Owens-Corning Fiberglas Corp., Ashton, Rhode Island

(Presented at a recent meeting of the Chicago AIC Chapter, Chicago, Ill.)

IT is no secret that technical people are restless in their jobs. It is inherent in technical work that we are not satisfied with things as they are; even standard processes and products seem to beg for refinement and improvement.

Our dedication to change continually upsets the balance of manufacturing standards, the sales portfolio, the risk of return on investment, and even the customer himself. Because evolution is life and stagnancy is death, we know and they know that science and technology, though painful and expensive, are essential for maintenance and growth of a corporation and a nation.

We scientists set ourselves up for job dissatisfaction by the interplay of inner and outer forces of misunderstanding of management and competition (for funds) with advertising budgets, sales expense, capital allocations, and stockholders' and taxpayers' equities. These are general aspects of technical dissatisfaction with the job and as long as we stay in this line of work, we are certain to be faced with the problem. Changing jobs is not likely to make it disappear. The challenge lies in solving the problem by better integration and better communication.

Ahead of us lies another source of job dissatisfaction which calls for a conjoining of the keen observational ability of the true naturalist and the efficient, reliable results of the statistically-planned experiment. These methods, and the people who practice them, are poles apart, but somehow they must learn to implement one another. This is a dichotomy which general management does not yet apprehend as a cause of job dissatisfaction and which it cannot solve. We must do it ourselves by an acceptable compromise, even though the statistical approach of randomized experiment infers totally different balances of scientist-technician employment and training. It is anathema to the introspective, inventive scientist and he will not tolerate employment of his genius in this manner.

"When should I change my job?" From the employer's point of view as well as from the employee's, we should change our job just as soon as we cannot give it more than we have been giving and cannot get more—in experience, satisfaction, progress, or remuneration—than we have been getting.

The employees who interest us here are not those who change jobs because of business deterioration, of nep-

otism blocking their way, of firms which expect employees to leave after a few years, of health, of family business, or because they were fired. Those that interest us here are those who have been poised, as it were, for some time; or who are pirated from us, or who have laid out methodical campaigns of job hunting. They are those most like ourselves.

Let us get to the bottom of this job disquiet. Very simply our problem boils down to a battle against boredom. "Boredom is a form of tension. Changes in routine are effective in relieving it. Try new interests and recreations. Realize that many situations cannot be changed."

To the query, "When should I change my job?," the answer is unequivocally, "Now."

I do not infer that one must change employers; that he must tear up his home and remove to alien parts; that he must give up seniority rights, pension programs, insurance, or what have you. There are some things necessary to a job that no employer can give. You have to make those gifts to yourself.

Humbly I offer a few approaches out of many that will change your job drastically because they will change you. These acts, if seriously pursued, are not easy to accomplish. They are, in fact, labors of Hercules, and indeed they all have precedent in classical cultures. But neither is it an easy thing to change employ-

ment; it is costly all around, it is often misguided; and it seldom solves fundamental problems of life.

First, know yourself. You will need help here and it will range in intimacy from your family circle to your religious mentor, to a professional job counsellor or psychologist. That all depends on how far you have to go. Remember it is yourself that is the beneficiary. Do not be afraid to shoot the works if need be. How can we understand the outsider if we do not know the stranger who is in our skin?

Once you have taken this measure you will surely find it shorter than you believed. Too short to reach the goals, ambitions, and dreams you still expect to happen. Or possibly you will find humility and retrench on your goals. Either one will directly affect your job viewpoint.

In any case you will be forced into a series of decisions with the help of your counsellors. This will result in some kind of action, but it will be a planned, considered action rather than a precipitous job-jumping or green-pasture gazing.

The second step might be assessing of accomplishment against your new goal. If you are the high-paid ulcerous type and now have determined to be more modest in your demands, perhaps to teach, you must retreat, reform, and advance gracefully. This will demand planning and self-preparation, with definite stages

WHEN SHOULD I CHANGE JOBS

to be reached on a time-schedule. Against this, measure accomplishment. Ideally, do some one thing every day to get there, if only a letter written or a chapter read, or a conviction made. Keeping an honest journal is the hardest thing to do, but if it is regarded as an original book of entry rather than "secret confessions" or a diary for posterity, you might succeed.

Third, begin to live dangerously. Punch your way out of that paper sack of boredom. We ourselves take very little risk on these laboratory children of ours. If the item flops, we probably do not get fired. Statistics show only one good development out of eight or ten get over the hill to the market anyway. Big risk for the company, no risk for us. With no risk there is no sense of responsibility.

So how to live dangerously? How to share risks with your employer? One way is to buy equity in your company. Already you are putting in 100 per cent of your time; add a few per cent of your returns, your salary, to the risk side. This will modify your viewpoint pretty drastically. Consider, with competent counsel, your own investment program.

The fourth approach is to grasp a new discipline. No technically trained person should be adverse to this. One may pick a "useful" discipline or one of unknown dimension. It should, however, be different from the previous academic training. The

purpose of doing this is to stretch the mind to make room for a bigger personality that lies dormant within. In the range of possibilities, for example, lies accountancy at one end, instrumental performance toward the middle, and Zen Buddhism at the extreme, along toward infinity. Accountancy (not book-keeping) is a severe test for any professionally-minded person, and in combination with science, it can lead to some very exciting job assignments as well to to refreshing views on the whole of the industrial and financial scene. Instrumental performance, a different instrument if you already play one, is not only a fine, clean discipline but a highly recreative activity. As a standard of reaching for perfection, it cannot be excelled.

If you really want the supreme discipline of all time, the one that will crack you open like a nut, the one that will smash forever your classical concepts of cause and effect; the one that will change you irrevocably from what you are to what you have never dreamed of; if you can stand that, turn around and face Zen Buddhism. Not to change your religion—it need not. Not to abandon the world, but the entire opposite. Not to try out for size, for you will be ground to dust. You jump in that furnace and you will not come out the way you went in. Let us just hope you don't need anything so blindingly drastic. But it is there, if that is your cup

of hemlock.

Fifth, seize on to a new world of experience. As scientists, we are interested in worlds, from the tiny systems of the atom to the immense extent of space, both being the same thing, I suppose. One caution—we do not approach this as a hobby; it is not a side-line and it is not an escape. Hobbies, too, can open new worlds, but by that time they are no longer hobbies.

There are many new worlds to select from: Worlds you measure by size, using the microscope or the refractor or the high frequency beam, all available to amateurs; worlds characterized by substance, by species or by life-forms. Thus, we have geologists, entymologists, and microbiologists; the world of colors; the world of sound—all these, all available to each of us for private research, deep experience, absorbing solitude, and extension of perspective.

For me, there is the world of common density. You may call it skin-diving. It is also a world of beauty, danger, innumerable life forms, of fluid art, of vast reaches. I choose to think of it in terms of common density because it is the only world in which I can live and move with natural grace. All day I go about my work awkwardly erect in posture, balancing precariously on ground several times my body's density, and passing through air only one-thousandth my corporal density. Entering the ocean,

drastic changes take place; posture, locomotion, all sensations, solitude magnified, danger, excitement, peace—no one has adequately described it. Important contributions to science are made daily from this world by amateurs; contributions in geology, archeology, marine life, tidal behavior, physiology, hydraulics—these and many more. But each one to his own choice of worlds. What is yours?

Finally, there is one precept in this daily job approach that I hesitate to speak of. Nevertheless, it is probably the greatest single factor in job and group deterioration that we can name today. It is gossip or ill-speaking of our associates—indulgence in character assassination. It is corroding to the individual who shares in it and it is disastrous to the aims of the organization. You must agree that it is widely practiced and I believe it is more to be feared than outside competition. Do we ever fight our competitors as hard as we fight each other? Is not our ethics at home more to be deplored than our business code in the market place?

This may well be the hardest part of re-molding your job and this personal responsibility for renouncing bad behavior. Yet it is manifest that attitude is the overwhelming factor of job dissatisfaction and it is almost certain that deep in our nature we revolt against our own ill manners in the herd, our cannibalism of character, and that this deep revolt is a

WHEN SHOULD I CHANGE JOBS

proper cause of boredom and dispirited outlook.

Now you will see that most of the half-dozen approaches suggested have something in common. Call it emergence. Call it pioneering. Call it the search for self. Whatever it is, we will find it begins inside the individual and reaches limitlessly from there.

When change your job? Why, at once, of course! Change it with courage and hope and excitement, every day of your life!

About AIC Members

Dr. Lloyd A. Hall, Hon. AIC, retired July 31 as technical director of The Griffith Laboratories, Inc., Chicago, Ill., after serving for more than 30 years. He will continue as consultant with Griffith. On August 15, he moved to his new home at 3445 Crestford Drive, Pasadena, California.

Dr. Edward Kravitz, F.A.I.C., is now director and owner of the Newark Medical Laboratory, Newark, Delaware. He was previously associate in clinical pathology at the Woman's Medical College of Pennsylvania and assistant director of laboratories of the Hospital of that institution, and he has been assistant chief of the Public Health Laboratories of the city of Philadelphia.

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Dr. William Seaman, F.A.I.C., of the research laboratories of American Cyanamid Company, has been awarded a Cyanamid senior research award for advanced study at the University of Durham, New Castle-Tyne, England, and for visits to research institutions around the world.

J. Robert Bonnar, F.A.I.C., director of marketing, Dyestuff & Chemical Division, General Aniline & Film Corp., New York, N. Y., announces that **Dr. Robert E. Brouillard**, F.A.I.C., has been appointed as sales manager—pigments.

Dr. E. M. Kipp, F.A.I.C., director of research, Foote Mineral Co., Philadelphia 44, Pa., announces that David W. Mitchell has been named coordinator, research and production.

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Dr. Donald B. Keyes, F.A.I.C., has been appointed a visiting professor of chemical engineering at Stevens Institute of Technology, Hoboken, N. J. He will also direct a seminar course on "Chemical Process Design and Evaluation," to consist of case studies presented by chemical industry executives and consultants.

Bjorn Andersen, F.A.I.C., has been appointed vice president of Celanese Development Company, (180 Madison Ave., New York, N. Y.) established by the Celanese Corp. of America to evaluate marketing expansion. Technical director of the new company is **William M. Shine, F.A.I.C.**

George Schneider, F.A.I.C., has been named vice chairman of Celanese Corp. of America, New York 16, N. Y. Since 1950, he has been senior vice president.

Frank M. Rosenblum, A.A.I.C., has been appointed adhesive group leader, Research & Development Department, Armour & Co., Alliance, Ohio.

John Morrisroe, F.A.I.C., president, Pilot California Co., Los Angeles 14, Calif., announces that Charles D. Thurmond has been appointed vice president of corporate and chemical development, and was also elected to the board of directors.

Dr. Bradley Dewey, Jr., F.A.I.C., president, Cryovac Div., W. R. Grace & Co., Cambridge Mass., announces the construction of a \$2 million addition to the Cryovac plant at Simpsonville, S. C.

Dr. Clyde Williams, F.A.I.C., president of Clyde Williams & Co., Columbus, Ohio, is chairman of the Committee on Materials Research and Development of the National Academy of Sciences-National Research Council.

Dr. Johan A. Bjorksten, F.A.I.C., president of Bjorksten Research Labs., Madison, Wis., who will receive the Honor Scroll of the Chicago AIC Chapter, October 1, will speak on "Extending the Productive Part of the Scientist's Life—a Positive Approach to Employment After 50."

(And see page 336)

The Teaching of College Chemistry — A Dedicated Opportunity

Dr. Arthur E. Wood

Head, Department of Chemistry, Mississippi College, Clinton, Miss.

(Presented when the author received the Honor Scroll of the Louisiana Chapter,
May 5, 1959, in New Orleans, La.)

HIGHER education in the United States had its beginnings in the small liberal arts colleges. Prior to the Revolution, there were eleven colleges, all church controlled, save one. The primary function of these early colleges was to train men for the ministry.

Following the Revolution, the establishment of small colleges continued. From the early 11, the number increased to 23 by 1800, to 56 by 1830, and to 236 by 1865. The private and church colleges during the period to 1865 far outnumbered the state institutions. The impact of these small colleges on American life of that period was profound. The law and the ministry were the most learned of the professions. Yet, technology was being developed slowly but impressively during this period:

The first railroad was built in 1826.
McCormick made his first reaper in 1834.

Colt made his first revolver in 1836.
Goodyear first vulcanized rubber in 1839.

Ether was first used as an anesthetic in 1842.

Morse sent his first telegram in 1844.
Howe made his first sewing machine in 1845.

The first ice making machine was developed in 1851.

The first bicycle was made in 1851.

Drake drilled his first oil well in 1859.

Joseph Lister first introduced antiseptic surgery in 1865.

Siemens made his first dynamo in 1866.

Alfred Nobel first produced dynamite in 1868.

The labor environment of the American worker during the period 1800-65 was largely agrarian. About 60 per cent of the laborers of this period were employed in agricultural enterprises and less than 20 per cent in industrial activities.

Today, the environmental status of the American worker is radically different. Efficient farm machinery has increased agricultural production and greatly decreased the demands for farm labor. Currently, approximately 50 per cent of American skilled labor is employed by industry and less than 15 per cent by agriculture.

Likewise, our concepts of higher education have been drastically revised. The thrust of a Russian satellite into space convinced the public of the wisdom of the ancient adage that knowledge is power. The importance of higher education is now almost universally acknowledged. Our institutions of higher learning are regarded as social agencies that not on-

ly stabilize the present but are predominantly important in preserving the future.

Today, there are an estimated 1270 institutions of higher learning in the United States operating at the four-year college level or above. The private and church supported universities (245) and the liberal arts colleges (596) account for two-thirds of these higher institutions. The publically supported universities number about 120. Most of our universities are of complex structure with tentacles reaching into varied areas of professional training.

The editor of the *Saturday Evening Post*, a few years ago, summarized the relative potentials of universities and colleges in these words:

"The work done by the two types of institutions overlaps broadly, but neither entirely covers the field of the other. In graduate, professional and highly specialized studies, the liberal arts college cannot compete with the great university; but in laying the foundations of a liberal education, in forming character by benign human contacts, in fitting the student for life itself rather than for the job that is but part of life, the small college still stands without a rival."

It should be emphasized that most small colleges have an environmental atmosphere highly conducive to careers in science. But in spite of their favored position in producing top-level baccalaureate graduates for professional careers in science, the small colleges remain the "forgotten institutions" when large gifts and

grants are distributed. If men of wealth would make a careful study of these small colleges, availing themselves of accurate information already gathered, they could invest their money shrewdly in the benevolent hobby of giving.

Why Be a College Teacher?

Specifically, why be a college chemistry teacher? The answer is personal and must come from the one concerned. The physician, the lawyer, the minister, the engineer have definite personal reasons for their professional choices. With them it is a way of life. The trained chemist who aspires to be a college chemistry teacher obviously feels that his talents can be best utilized in that area of service.

The writer has stood for thirty-nine years behind the desk in the chemistry department of a small college and for twenty-six years of that time was the only full-time chemistry teacher employed. The flow of several hundred chemically trained students into varied areas of chemical service, some as teachers in major universities; others as teachers in colleges; many in commanding positions in industry and all rendering a satisfying service with an aggregate of more than 1000 research and technical publications, constitutes the writer's answer to the question of why be a college chemistry teacher. The joy of seeing students come through is a thrilling intangible of inestimable value in the life of the teacher.

Much has been said recently about salaries of college teachers. It is true that the salary of a college teacher is not equal to industrial salaries for comparable service. But fortunately, the salaries of college teachers are be-

ing readjusted upward and in time will be more equitable. It must be remembered that life values are measured in terms of service and that the value of a life cannot be equated in terms of money.

Scientist, Teacher and Civic Leader

Dr. Thomas D. Fontaine

Head, Fellowships Section, National Science Foundation, Washington 25, D.C.

(Presented when Dr. A. E. Wood received the Honor Scroll of the Louisiana Chapter.)

TRUE greatness is said to be simplicity itself; or, he who serves is great. Whatever may be the definition of greatness or the test for measuring it, Dr. Arthur E. Wood is one of these rare individuals who would meet the test in an outstanding way.

He has borne with honor and distinction his civic and educational responsibilities for these many years. He has endeared himself to the hearts of his coworkers, his students, his fellow citizens. For some of us, he has been our teacher, our leader, and our friend and it may be said of him: "A part of him will be a part of us forever."

A year ago *The Clarion-Ledger Newspaper*, Jackson, Miss., carried an interesting account on Dr. Wood, when it had just been announced that he would receive a College Chemistry Teacher award offered by the Manufacturing Chemists' Association, Inc. The article began, "Because he did not want to work behind a mule, and so left home to get more edu-

cation . . .," which might lead one to believe that he did not like being a farm boy. I would guess that this was the farthest from the truth. He either felt that the mule could not teach him very much about farming or as a young man he found he could even teach a mule a few new tricks, and reached the conclusion that teaching students would not be so bad after this experience! Whatever his motivation, we are pleased, indeed grateful, that he chose teaching as a career and put his "mule sense" to work.

Dr. Wood received the B.S. degree from Mercer University (1905), the M.S. degree from Vanderbilt University (1909), and the Ph.D. in Chemistry from the University of Pittsburgh (1924). He began his teaching career in 1912 and has continued teaching chemistry at the college level with only one interruption—the year he spent at the University

of Pittsburgh working for the doctorate.

Mississippi College was indeed fortunate in obtaining his services in 1920, and he has made significant contributions to science directly and through his students. He has reached many students in his years of teaching and they are the better for it. Approximately 500 chemistry majors have been awarded baccalaureate degrees from Mississippi College during his tenure. More than 85 per cent of these are currently employed in activities related to training in chemistry. Chemistry doctorates are held by 40 of these majors and an additional 50 have earned master's degrees in chemistry. Many of these majors hold professorships of chemistry in senior colleges and universities, and many hold important positions in industry and government. Seventeen chemistry majors are now in graduate schools seeking advanced degrees. Four are in schools of engineering seeking degrees in chemical engineering.

One of the major concerns in our work at the National Science Foundation is how to determine or measure creative ability. We do not have a really satisfactory answer, yet Dr. Wood, over the years, has been able to "pick the winners" with a remarkable degree of success . . .

In 1948, I tried to put together in my mind what Dr. Wood looked for in an assistant. I came to the follow-

ing conclusion:

"What is the desired chemical composition of an assistant? The individual we wish to train should contain: a little sugar, but not too sweet; a lot of salt, thus a thirst for knowledge; a bit of tannin, to toughen the hide; starch, to stiffen the backbone; protein, to glue him to the job; fat, enough to take the squeaks out, but lean enough to be keen; fluid, enough to seek new paths; hormones, enough to catalyze his reactions; enzymes, to digest and assimilate the job; gray matter, enough to nourish new ideas; and vitamins, for the sunshine in his smile."

For almost 40 years Dr. Wood has been seeking out students at Mississippi College that meet these qualifications or some such set of qualifications known only to him. Concurrently with his teaching duties has been his civic responsibilities—over twenty-five years as Mayor of Clinton, to mention only one . . .

Our teachers will chart our future as a nation. For a nation thrust into the unsought role as leader in the free world, combined with our responsibilities of world leadership, and the tremendous growth and complexity of our own government, we must have trained minds—freely trained—and dedicated persons. We need more Dr. Woods if we are to fulfill our destiny and maintain our place in world leadership. At this time in history, we appear to have little choice in this matter so it is time we give attention to the demands of our times and get the job done—not as an overnight solution of the problems but to prepare for the longer and continuing pull ahead.

SCIENTIST, TEACHER AND CIVIC LEADER

When I attended a Brookings Institution Conference in Williamsburg, Va., last December, the most inspiring part of the program was that part in an evening, by candlelight, when I sat in the House of Burgesses listening to an address on Thomas Jefferson. Jefferson and other great thinkers of this time realized so clearly that an educated public would be necessary to make democracy work. Today, an educated public is not only necessary to make democracy work, it is necessary for our world leadership and indeed our very survival. Upon whom does our fate lie—our teachers and in the careful

training of our youth. In order to accomplish our objectives, we must turn with hope and trust to the teaching profession who in turn must be restored to their rightful place in our society, a respected place.

Our torch of leadership must be the lamp of learning. For a scientist, teacher, and civic leader, who has been a part of the world, rather than apart from the world of human endeavor, no greater recognition could be given him and no greater honor bestowed upon him at this time than to receive this award of the Honor Scroll of the Louisiana Chapter.

Presentation to Dr. Wood

DR. Arthur Eugene Wood, head of the Chemistry Department, Mississippi College, Clinton, Miss., was presented with the Honor Scroll of the Louisiana Chapter of THE AMERICAN INSTITUTE OF CHEMISTS at a dinner meeting, May 5, 1959, held at Frank's Steak House, New Orleans. Dr. Winston R. deMonsabert, professor of chemistry at Loyola University and chairman of the Chapter, presided.

The presentation address was made by Dr. Thomas Fontaine, head, Fellowship Division, National Science Foundation, Washington, D. C., a former student of Dr. Wood.

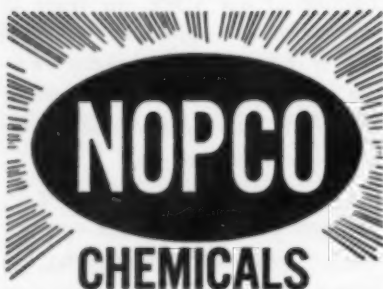
Dr. Wood accepted the scroll with

an address on "The Teaching of College Chemistry—A Dedicated Opportunity." (See preceding pages.)

The Louisiana Chapter also awarded student medals at this meeting to Eugene C. Chauviere, Jr., of Tulane University; H. George Friedman, Jr., of Loyola University, and Edward W. Graham of Louisiana State University, for their outstanding scholarship and leadership as undergraduate students in chemistry or chemical engineering.

The citation on the Honor Scroll to Dr. Wood reads:

For distinguished contribution to the education of chemists.



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Dr. Charles L. Thomas, F.A.I.C., has been appointed the first scientific advisor of the Sun Oil Company, Philadelphia 3, Pa. Formerly director of research and development, Dr. Thomas will now furnish scientific leadership and engineering and pursue his research specialties without administrative distractions.

Nicholas M. Molnar, F.A.I.C., president, Fine Organics, Inc., Lodi, N. J., announces the acquisition of Rhodes Chemical Co., of Plainfield, N. J. Production will be centralized at the Lodi, N. J. plant of Fine Organics.

Dr. Harvey A. Neville, F.A.I.C., director, Institute of Research, Lehigh University, Bethlehem, Pa., announces that the department of chemistry has received two new research grants totaling \$27,055.

Jack H. Dollinger, F.A.I.C., president, Ferro Chemical, Bedford, Ohio, announces that Donald E. Adam has been appointed plant chemical engineer at Ferro Chemical, a division of Ferro Corp.

(And see page 347)

The Origin of that "Ivory Tower"

(Scientists are often said to dwell, or told not to dwell, in an "ivory tower." The obscure origin of this expression is excerpted here from an address by Erwin Panofsky, "In Defense of the Ivory Tower," delivered at the 1957 Harvard University Commencement. Reprints of the complete address, with a credit line to the Association of Princeton Graduate Alumni, were distributed by Arthur D. Little, Inc., Cambridge, Mass., with their *Industrial Bulletin*, No. 353.)

TO say of a man that he lives in an ivory tower . . . combines the stigma of egocentric self-isolation (on account of the tower) with that of snobbery (on account of the ivory) and dreamy inefficiency (on account of both) . . .

What, then do we know about the origin and the history of this simile? The story begins, it seems, quite late in 1837 when the French poet Charles-Augustin Sainte-Beuve, in his *Pensees d'Aout*, contrasts Victor Hugo, the "hardy partisan" who upholds the banner of his political creed in battle, with the "reserved" Alfred de Vigny who, though sharing Hugo's convictions, "withdraws before noon as though into his ivory tower" (. . . *et Vigny, plus secret comme en sa tour d'ivoire avant midi retrait*).

Here the ivory tower first appears as the symbol of a man withdrawing from active life and "social responsibilities" into a state of intellectual seclusion . . .

The popular aversion to ivory towers may be accounted for by a deep-seated antipathy not only against intellectual detachment but also against over-sophistication. What makes the practical man so indignant is not only that the impractical man shuts him-

self away in a tower . . . What seems so outrageous is the fact that his tower consists of so costly, so aristocratic, and at the same time so brittle a material as ivory.

However, precisely this notion—the notion that the tower of the intellectual recluse is built of what Henry James calls "that rare substance"—is based upon a curious misconception. When Sainte-Beuve, the originator of it all, reproached Alfred de Vigny for withdrawing into his ivory tower, he fused, and (I'm afraid) confused no fewer than three entirely different ideas.

From a purely verbal point of view, the phrase *tour d'ivoire*, "tower of ivory," is a direct quotation from the only source where it occurs before Sainte-Beuve: *The Song of Songs*, Chap. 7, versicle 4. Here the bridegroom says to the bride: "Thy neck is like a tower of ivory" (*Collum tuum sicut turris eburnea*). In significance, however, there is a world of difference between the way in which the simile is employed in the *Song of Songs* and by Sainte-Beuve.

First of all, Sainte-Beuve has transferred the quality of ivoriness from the object of comparison to the medium of comparison. In the bold,

Oriental imagery of the *Song of Songs* the neck of the lady beloved is likened to a tower because the tower is slender, round, and straight; the tower, on the other hand, is said to be of ivory because the neck of the lady beloved is cool and smooth and bright in color. The tower is no more thought of as being made of ivory than the neck of the lady is thought of as being a hundred feet high . . .

Second, and more important, the tower evoked in the *Song of Songs* has nothing whatever to do with the idea of seclusion or isolation. This connotation belongs to an entirely different literary tradition, which has found its noblest expression in Milton's dialogue between the Allegro the cheerful extrovert, and the Penseroso, the thoughtful man, the votary of solitary meditation:

Or let my lamp at midnight hour
Be seen in some high lonely tower
Where I may oft outwatch the Bear.

Sainte-Beuve had a profound admiration for Milton's dialogue, as we happen to know, and it was perhaps in recollection of Milton that he reinterpreted a daring, erotic image of physical beauty into a symbol of spiritual isolation. But why did he retain the Biblical tower, which is of ivory but has nothing to do with withdrawal, when he was thinking of the Miltonian tower, which does signify contemplative isolation but has nothing to do with ivory?

That he could fuse these two heter-

ogeneous images into one is due, I believe, to the intrusion of a third tower which could operate, as it were, as a common denominator between the Bible's and Milton's, and that was the tower in which Danae, the daughter of Acrisius of Argos and mother-to-be of Perseus, had been confined by her father in an effort (a futile effort, incidentally) to protect her from any defiling contact. This "tower of Danae" was not made of ivory; it was, however, not an ordinary stone structure either. It consisted of bronze; and the very line in which this is said—a famous and ear-filling line from Horace—is dangerously reminiscent of the celebrated versicle in the *Song of Songs*: *Inclusam Danaen turris aenea*. It is this fatal assonance between Horace's *turris aenea*, with all its overtones of isolation and seclusion, and the Biblical *turris eburnea*, so alluring from a poetic and phonetic point of view, which induced Sainte-Beuve to send De Vigny into a *tour d'ivoire* . . .

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Highlights of Council Meetings

May 6 Meeting

The 326th meeting of the National Council of The American Institute of Chemists was held May 6, 1959, at 7:00 p.m., at The Traymore Hotel, Atlantic City, N. J., with Dr. Emil Ott, retiring president, presiding.

The following officers, councilors, and alternates were present: Dr. Murray Berdick, Dr. J. A. Bjorksten, Dr. Stephen D. Bruck, A. D. Etienne, Dr. M. H. Fleysheer, Dr. L. A. Hall, K. M. Herstein, Dr. F. A. Hessel, Morris Kenigsberg, Dr. D. B. Keyes, Dr. W. E. Kuhn, Dr. A. P. Mathers, Dr. J. H. Nair, Dr. Emil Ott, B. E. Schaar, Dr. Rudolph Seiden, Dr. W. R. Sullivan, Dr. W. W. Thomas, Dr. L. Van Doren, M. B. Williams.

The following chairmen of the Annual Meeting Committees were present: C. A. Amick, Dr. Max Bender, Dr. M. Burdick, Dr. J. H. Dusenbury, G. F. Foy, John Kotrady.

The following additional persons were present as Committee representatives, or to present special business, or as guests: Dr. J. R. Bowman, M. R. Bhagwat, A. K. Doolittle, Dr. L. T. Eby, Lawrence Flett, Dr. R. W. Freedman, Dr. Milton Harris, J. E. Henning, Dr. M. J. Kelley, Clark E. Thorp, and Vera Kimball.

New Officers Announced

Retiring President Ott announced that Dr. Milton Harris, was elected president-elect, to take office as president in May 1960; Dr. Donald B. Keyes and Dr. S. D. Kirkpatrick were re-elected councilors-at-large, and Dr. John H. Nair was elected councilor-at-large.

New Jersey State Science Day

Mr. Amick announced that the 9th Annual State Science Day, sponsored by the N. J. Science Teachers' Association and Rutgers, the State University, was scheduled for May 9, and that Merck & Co., Inc., had donated eight \$2000 scholarships to be made available. He urged more industrial support of science scholarships.

Emeritus Fellows

Upon motion, Emeritus status was conferred on: William H. Tonkin, F.A.I.C., and George G. Urquhart, F.A.I.C.

Friends Departed

The following deaths were announced with deep regret, and a moment of silence was observed in their memory:

Harry E. Bruce,

Life Member, March 29, 1959.

John B. Calkin,

F.A.I.C., April 18, 1959.

Dr. Lucien H. Greathouse,

F.A.I.C., Nov. 8, 1958.

Leonard Wickenden,

Charter Member, April 21, 1959.

Lester Yoder,

Emeritus Fellow, April 19, 1959.

Resolution on Professionalism

A resolution to re-emphasize the professional status of chemists and chemical engineers, as a result of a reported statement that they were mere employees whose problems should concern trade unions, was presented and discussed. Dr. Wayne E. Kuhn was appointed chairman of a Committee to prepare such a resolution for presentation at the Annual Business Meeting. (See *THE CHEMIST*, July 1959, p. 245.)

The Problem of Clinical Laboratories

Dr. Mathers spoke on the problem of operating clinical laboratories in some states, and proposed a motion to the effect that qualified clinical chemists should be able to operate clinical laboratories without the supervision of members of other professions. This motion was approved in principle and referred to the 36th Annual Business Meeting.

Appointment of Chapter Representatives

A report from Benjamin Sweedler, chairman, Committee on Constitution and By-laws, was presented in which he interpreted Article III, Sec. 5, of the Constitution as permitting a Chapter to designate an alternate representative from another Chapter, in case the Chapter's representative is unable to attend a Council meeting. The Council requested that the local Chapters notify the Secretary, at least 24 hours in advance of the Council meeting, of the names of such alternate representatives.

Beaver Falls Chapter Created

Mr. Thorp presented a petition signed by AIC Fellows in the upper New York State area bounded by a line from Oswego to Syracuse, east to Utica, northeast through Glens Falls, N. Y., on to the New York-Vermont border. This petition was approved.

Pittsburgh Chapter Created

Dr. R. W. Freedman presented a petition signed by AIC Fellows in western Pennsylvania requesting the formation of a Pittsburgh Chapter. This petition was approved.

Florida Chapter Created

The names of more than ten Fellows in Florida, obtained by D. H. Killeffer, F.A.I.C., on a petition for the formation of a Florida Chapter, to include that territory lying east and south of the Apalachicola River, was presented and approved.

Wisconsin Chapter Created

Mr. Henning presented the names of Fellows in Wisconsin in a petition to form a Wisconsin Chapter, and this petition was approved.

Tennessee Chapter Created

A petition signed by Fellows in Tennessee, sent in by J. E. Magoffin, F.A.I.C., was presented. This petition for a Tennessee Chapter was approved.

Membership Goal

Mr. Williams, chairman of the Committee on Chapter Activities, recommended that this Committee be divided into two committees, one to handle expansion and new Chapters, the other to handle activities for established Chapters. He proposed that "6000 in '60" be the membership goal for the 1959-60 fiscal year. He proposed the formation of a "200 Club" in which 200 members would each pledge to bring in 10 new members. (See THE CHEMIST, August 1959, p. 287.)

Suggestions for AIC Activities

Mr. Bhagwat presented "Recommendations to Expand the Activities of the AIC" in mimeographed form, and spoke briefly on the value to the AIC of utilizing some of the experience obtained by the Chemist Advisory Council.

Committee Reports

Committee and Chapter reports were presented and accepted. (For some of these reports see THE CHEMIST, Aug. 1959, p. 310.)

New Members

The following new members were elected:

FELLOWS

- Anish, Alfred W.**
Manager of Market Development,
Latex Fiber Industries, Inc.,
Beaver Falls, New York.
- Bender, Dr. C. R.**
Manager, Product Control & Research
Dept., The Coca-Cola Co.,
P.O. Drawer 1734, Atlanta 1, Ga.
- Breger, Dr. Irving A.**
Chemist, U.S. Geological Survey,
Washington 25, D. C.
- Cervený, William J.**
Senior Project Chemist, Standard Oil Co.
of Indiana, Box 431, Whiting, Indiana.
- Clark, Dr. Marion T.**
Associate Professor of Chemistry,
Emory University, Atlanta 22, Ga.
- Deischer, Dr. Claude K.**
Acting Curator & on Board of Editors,
CHYMIA, E. F. Smith Memorial Li-
brary, University of Pennsylvania,
Philadelphia 4, Penna.
- Ehrlich, Dr. Joseph R.**
Proprietor & Director of Research,
Ehrlich & Irany, Chemical Consultants,
350 West 31st Street, New York 1, N.Y.
- Eibert, Jr., Dr. John**
Secretary-Treasurer-Director of Labora-
tories, Scientific Associates, Inc.,
St. Louis, Mo.
- Fourt, Dr. Lyman**
Scientific Investigator, Harris Research
Laboratories, Inc., 6220 Kansas Avenue,
N.E., Washington 11, D. C.
- Frolich, Dr. Per K.**
Chief, Chemical Office, Department of
the Army, Office for Scientific Activities
& Chief Scientist, Washington 25, D.C.
- Gurien, Dr. Harvey**
Research Chemist, General Aniline &
Film Corp., P.O. Box 12, Linden, N. J.

COUNCIL

Hancock, Dr. Charles K.
Research Chemist, Agricultural & Mechanical College of Texas, Dept. of Chemistry, College Station, Texas.

Hardwicke, Jr., Dr. James E.
Director of Research, Cardinal Manufacturing Co., 5727 Lake Shore Drive, Columbia, S. C.

Holland, Dr. William E.
Development Manager, Evans Research & Development Corp., 250 East 43rd St., New York 17, N. Y.

Langston, Dr. James H.
Head & Professor of Chemistry Dept., Howard College, Birmingham 9, Ala.

Manly, Dr. Richard S.
Owner & Director, Westwood Research Laboratory, Westwood, Mass.

Martus, S. J., Dr. Joseph A.
Associate Professor of Chemistry, College of the Holy Cross, Worcester 10, Mass.

McMillan, Jr., Oscar J.
Chemical Engineer, Industrial Analysis Investigations, Southern Regional Research Labs., ARS., U.S. Dept. of Agriculture, 1100 Robert E. Lee Blvd., New Orleans 19, La.

Miller, Julius
Chief Chemist, Research Labs., Pharma-Chemical Corp., 169 West 52nd St., Bayonne, N. J.

Naftel, Lee A.
Chemist-Aeronautical Fuels Research, Engineering Materials Branch, Army Ballistic Missile Agency, Redstone Arsenal, Ala.

Normington, Dr. James B.
Supervisor, Chemical Quality Control, General Aniline & Film Corp., P.O. Box 12, Linden, N. J.

Parsell, John C.
Chief Chemist, The J. P. Lewis Company, Beaver Falls, N. Y.

Ramage, Frederick R.
Development Laboratory, Latex Fiber Industries, Inc., Beaver Falls, N. Y.

Reed, Jr., Dr. Russell
Solid Propellant Research, Hughes Tool Company, Culver City, Cal.

Roberts, Dr. Eugene
Chairman & Asst. Director of Research, City of Hope Medical Center, Dept. of Biochemistry, Duarte, Cal.

Rosenblum, Dr. Charles
Head, Radioactivity Laboratory, Merck, Sharp & Dohme Research Labs., Rahway, N. J.

Rossini, Dr. Frederick D.
Silliman Prof. & Head of Dept. of Chemistry & Director of Petroleum Research Laboratory, Carnegie Institute of Technology, Pittsburgh 13, Pa.

Rusiecki, Kazmir J.
Building Supervisor, General Aniline & Film Corp., P.O. Box 51, Linden, N. J.

Ryberg, Milton E.
Head, Applied Sciences Branch, Food Science & Engineering Div. U.S. Naval Supply Res. and Dev. Facility, Naval Supply Depot, Bayonne, N. J.

Snider, O. E.
Group Leader, National Aniline Division, Box 831, Hopewell, Va.

Spicer, Dr. William M.
Dept. Head & Director, School of Chemistry, Georgia Institute of Technology, Atlanta, Ga.

Stein, Dr. Charles W. C.
Senior Chemist, Process Res. & Development, General Aniline & Film Corp., P.O. Box 12, Linden, N. J.

Wynne, Edwin A.
Director of Research & Development, Fisher Scientific Co., Chemical Mfg. Div., 1 Reagent Lane, Fair Lawn, N.J.

MEMBERS

Austin, Jr., John G.
Associate Chemist, Chem. Thermodynamics Section, Thiokol Chemical Corp., Redstone Division, Huntsville, Ala.

Bussian, Joseph J.
Senior Research Chemist, Foote Mineral Company, Research & Development, P.O. Box 576, Berwyn, Pa.

Comer, Stanley W.
Chief Laboratory Technician, Biochemistry Dept., University of Washington, Seattle, Wash.

Croomes, Edgar F.
Analytical Chemist, Army Ballistic Missile Agency, Dept. of Army, Redstone Arsenal, Ala.

Dupuy, Dr. Harold P.
Research Chemist, ARS, SURDD, 1100 Robert E. Lee Blvd. New Orleans 19, La.

Gatcheff, Z. George

Control Chemist, General Aniline & Film Corp., P.O. Box 51, Linden, N. J.

Hoffman, B. J.

Chief Chemist, Grace-Lee Products Inc., 1414 Marshall St., N. E., Minneapolis 13, Minn.

Krupnick, Albert C.

Supervisory Chemist, Army Ballistics Missile Agency, Engineering Materials Branch, Analytical Chemistry Section, Redstone Arsenal, Ala.

Mackles, Leonard

Technical Director, Chemclean Products Corp., College Point, N. Y.

Margolis, James M.

Chemical Marketing & Research Company, 10 East 39th Street, New York 16, N. Y.

Norwood, III. Samuel L.

Project Leader, Exploratory Res. Group, Tennessee Corporation, Res. Labs., 900 Roosevelt Highway, College Park, Ga.

Swift, James B.

Laboratory Supplies Sales Representative, E. H. Sargent & Company, 3125 7th Avenue, North, Birmingham, Ala.

Vanderschmidt, Roland J.

Pilot Plant Engineer, Simoniz Company, 2100 Indiana Avenue, Chicago 16, Ill.

ASSOCIATES**Arnhold, Jr., Ray C.**

Associate Chemist, Group Leader, Thiokol Chemical Corporation, Huntsville, Ala.

Kirkland, James B.

Junior Chemist, Thiokol Chemical Corporation, Propellant Development, Huntsville, Ala.

Mackey, Johnny R.

Junior Chemist, Thiokol Chemical Corporation, Huntsville, Ala.

Vance, Samuel L.

Chemical Engineer, Thiokol Chemical Corporation, Huntsville, Ala.

**RAISED FROM MEMBER
TO FELLOW****Hall, Cheston A.**

Senior Staff Chemist, The Coca-Cola Company, P.O. Drawer 1734, Atlanta 1, Ga.

**RAISED FROM ASSOCIATE
TO MEMBER****Sumerlin, H. Lee R.**

Assistant Chemist, Southern Research Institute, 2000 Ninth Avenue, S., Birmingham 5, Ala.

**REINSTATED AS AN ASSOCIATE
Mentl, Myra S.**

Main Street, Beaver Falls, N. Y.

May 8 Meeting

The 327th meeting of the National AIC Council was held May 8, 1959, at 8:00 a.m., in The Traymore Hotel, Atlantic City, N. J., with Dr. Wayne E. Kuhn, new AIC president, presiding.

The following officers, councilors or alternates were present: Dr. Murray Berdick, Dr. Johan Bjorksten, Dr. L. T. Eby, Dr. M. H. Fleysher, Dr. L. A. Hall, Dr. Milton Harris, J. E. Henning, K. M. Herstein, Dr. F. A. Hessel, Morris Kenigsberg, Dr. W. E. Kuhn, Dr. J. H. Nair, Dr. Emil Ott, B. E. Schaar, Dr. Rudolph Seiden, G. H. Taft, Dr. W. W. Thomas, C. E. Thorp, Dr. L. Van Doren, M. B. Williams.

The following Committee representatives, or persons to present special business, or guests, were present: Dr. Max Bender, Dr. G. Harvey Benham, M. R. Bhagwat, Dr. S. D. Bruck, Dr. James D. D'Ianni, Dr. R. P. Dinsmore, John Kotrady, R. L. Moore, Dr. B. D. Van Evera, and Vera Kimball.

Pan American Affiliates

The Report of the Committee on Pan American Affiliates, Dr. L. F. Pierce, chairman, was presented. Dr. Dinsmore stated that there is a real need to promote good relations with Pan American countries, and that this Committee's proposal was designed to promote such relationships with qualified visiting chemists. The report was referred to the June Council.

**Recommendations for AIC
Activities**

Mr. Bhagwat spoke on "Recommendations to Expand AIC Activities," and these recommendations were referred to the Committee to Implement AIC Objectives.

Dr. Kuhn summed up a discussion on public relations, stating that the AIC needed to let the public know more about it and its activities, and welcomed suggestions.

COUNCIL

Michigan Chapter Created

Mr. Williams presented a request from AIC members in Michigan; obtained by Dr. John M. O'Neill, for a Michigan Chapter. This petition was approved.

New Member

The following member was elected:

FELLOW

LaValley, Paul E.
*Manager of Mechanics Research,
Fiber Products Research Center, Inc.,
Beaver Falls, N. Y.*

37th Annual Meeting

Mr. Kenigsberg reminded the Council that the next Annual Meeting is scheduled for May 11-13, 1960, in Minneapolis, Minn., and that interesting activities are planned for the weekend following the meeting.

June Meeting

The 328th meeting of the National AIC Council was held June 23, 1959, at The Chemists' Club, New York, N. Y. at 12:15 noon, with Dr. Wayne E. Kuhn, AIC President, presiding.

The following officers, councilors or alternates were present: Dr. A. B. Allen, Dr. L. T. Eby, Dr. Milton Harris, K. M. Herstein, Dr. F. A. Hessel, Dr. D. B. Keyes, Dr. W. E. Kuhn, Dr. J. H. Nair, Dr. Emil Ott, Marcus Sittenfield, Dr. Max Tishler, Dr. L. Van Doren, and M. B. Williams. Dr. Max Bender for the Committee to Implement AIC Objectives, John Kotrady for the 1959 Annual Meeting, and Vera Kimball were present.

The Budget for the 1959-60 fiscal year, as approved by the Board of Directors, was accepted.

Friends Departed

The Secretary announced with deep regret the deaths of the following members and a moment of silence was observed in their memory:

Dr. E. E. Butterfield,
F.A.I.C., May 16, 1959.
W. H. Eisenman,
F.A.I.C., May 1958.
Dr. Cash B. Pollard,
F.A.I.C., June 1959.
Maurice C. Taylor,
F.A.I.C., June 6, 1959.

Dr. Marin J. Udy,

Life Fellow, April 11, 1959.

Prof. C. S. Williamson, Jr.,

Life Fellow, May 11, 1959.

Emeritus Status Conferred

The following Fellows were given Emeritus status:

Dr. Elton R. Darling,

Charter Member.

Dr. Dwight C. Bardwell

Helmut C. Diehl

Dr. C. H. Fiske

Arnold Kirkpatrick

Irvin R. MacElwee

Mailing List

Upon motion, it was reconfirmed that the mailing list of the AIC membership will not be released for advertising purposes.

Initials of Membership Status

A request from William E. Bailey, F.A.I.C., of the Washington Chapter, was presented in which he asked that the member's name on all first class mail from the national AIC office be followed by the initials of the member's status in the AIC; i.e. that the name be followed with F.A.I.C., M.A.I.C., or A.A.I.C. Upon motion, the secretary was requested to have this done.

Committee on Education

Mr. Herstein, chairman of the Committee on Education, announced that (1) the Committee has requested President Kuhn to write to the Governor of New York State concerning a proposed survey of schools. (2) Dr. Keyes, a member of the Committee, is working on a survey of High Schools in the U.S., in which a list of all courses, basic and non-basic, are requested. Dr. Keyes stated that Dr. Killian's final report, as scientific advisor to the President, contains a report on education. It was requested that the report of the Committee on Education be circulated to the Chapters and Council.

Dr. Bender reported for the Committee on Implementing AIC Objectives that the Committee recommended that Mr. Bhagwat's suggestions be referred to the appropriate committees for study.

Committees

Committees for the 1959-60 fiscal year were appointed. (See page 322.)

Committee on Membership

Dr. Eby, chairman of the Committee on Membership, stated that the Committee felt that it was not desirable to have any new classes of membership at the present time.

Resolution on Professionalism

Dr. Kuhn presented the Resolution on Professionalism which was passed at the 36th Annual Meeting, after having obtained requested advice on its wording. Upon motion, the only change in this Resolution was to make specific reference to the event which inspired it, instead of attributing it to a magazine report. (See *THE CHEMIST*, July 1959, p. 245.)

Pan American Affiliates

The report of the Committee on Pan American Affiliates, previously referred to the Committee on Constitution and By-laws, was presented, together with the Committee's opinion that these proposed non-member affiliates would not in fact be members, and that they therefore do not come within the provisions of the Constitution governing members, but could be accepted by action of the Council.

Representatives to the AAAS Council

The following representatives of the AIC were appointed to serve on the AAAS Council: Dr. Milton Harris, President-elect, and Dr. L. Van Doren, Secretary.

Social Hour

Upon motion, the American Chemical Society was requested to schedule a social hour for the AIC to be held Monday, September 14, 1959, in Atlantic City, N.J., during the ACS Convention there.

Special Council Meeting

Upon motion, the Council decided to hold a special meeting on September 13, 1959, in Atlantic City, N. J., at 5:30 p.m. to discuss *THE CHEMIST* and the report of the Committee to Consider *THE CHEMIST*. The members of *THE CHEMIST* Advisory Board and the editor were invited to attend this meeting.

Regular Council Meeting

It was decided to hold the next regular meeting of the National Council at a luncheon in the LaSalle Hotel, Chicago, Ill., on Thursday, October 1, 1959.

New Members

The following new members were elected:

FELLOWS

Axtell, Oliver

Economic Evaluation Engineer,
Celanese Corp. of America,
180 Madison Avenue, New York, N.Y.

Brown, Richard C.

Director of Laboratory,
U. S. Envelope Company Laboratory,
Metuchen, N. J.

Buras, Edmund M. Jr.

Harris Research Laboratories, Inc.
6220 Kansas Avenue, N. E.,
Washington 11, D. C.

English, Dr. W. David

Research Chemist, U. S. Borax Research
Corp., 412 Crescent Way, Anaheim, Cal.

Ewell, Dr. Raymond

Vice-Chancellor for Research,
University of Buffalo, Buffalo 14, N. Y.

Frederick, Raymond H.

Regional Engineer, Reynolds Metals
Company, 4645 Bellevue,
Kansas City, Mo.

Herold, Peter C.

*Executive Vice President & Product
Dev. Mgr.,* Chemco Puro Mfg. Corp.,
150 Doremus Ave., Newark, N. J.

Kogon, Dr. Irving C.

Research Chemist, E. I. duPont de
Nemours & Co., Wilmington, Del.

Malm, Carl J.

Director, Cellulose Technology Div.,
Eastman Kodak Company,
Rochester, N. Y.

Mathe, Clarence E. Jr.

President, Mathe Chemical Company,
169 Millbane Street, Lodi, N. J.

Matuszko, Dr. Anthony J.

Head, Fundamental Processes Div.,
Res. & Dev. Dept., Naval Propellant
Plant, Indian Head, Md.

Phillips, Dr. George E.

Director of Biochemical Research,
Warner-Lambert Research Institute,
Morris Plains, N. J.

Rexford, Dr. Dean R.

Research Chemist, Organic Chemicals
Dept., E. I. duPont de Nemours & Co.,
Jackson Laboratory, Deepwater, N. J.

COUNCIL

Tarantino, Thomas

*Chemical Engineer, Process Eng. Dev.,
General Aniline & Film Corp., Dyestuff
& Chemical Div., P.O. Box 12,
Linden, N. J.*

MEMBERS

Franklin, Dr. William E.

*Assistant Professor of Chemistry,
Loyola University, New Orleans 18, La.*

Gelman, Charles

*Director of Research & Development,
Gelman Instrument Co., 106 North
Main, Chelsea, Mich.*

Gesner, William E.

*Senior Chemist, Wallerstein Co., Inc.,
Div. of Baxter Labs., Wallerstein
Square, Staten Island 3, N. Y.*

ASSOCIATES

Bateman, Thomas L.

928 E. Haines St., Philadelphia 38, Pa.

Johnston, James E.

*Chemical Engineer, Redstone Arsenal,
Huntsville, Ala.*

Oswald, Kenneth J.

*Paint Formulator, Stebbins & Roberts,
Inc., P.O. Box 791, Little Rock, Ark.*

Sides, James R.

*Junior Chemist, Thiokol Chemical
Corp. Redstone Division,
Huntsville, Ala.*

Slavin, Donald G.

*Research Chemist, Amchem Products
Inc., Ambler, Pa.*

Spanier, Edward J.

*Teaching Assistant, Graduate Student,
Purdue University, Lafayette, Ind.*

Van Slyke, William J.

*Asst. Chemical Engineer, Structures &
Mechanics Lab., Army Ballistic Missile
Agency, Redstone Arsenal, Ala.*

RAISED FROM ASSOCIATE TO MEMBER

Arnhold, Ray C., Jr.

*Associate Chemist, Group Leader,
Thiokol Chemical Corporation,
Huntsville, Ala.*

RAISED FROM MEMBER TO FELLOW

Steele, Dr. Frank J.

*Chief Chemist, Greenwich Hospital
Association, Greenwich, Conn.*

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Bacteriologist (Medical) Grade GS-11, salary \$7,030, and **Bacteriologist (Medical)**, Grade GS-7, salary \$4,980.

Applications for above positions should be submitted to the Civilian Personnel Office, Fort Detrick, Frederick, Maryland.

Chemical Engineer

required by manufacturer of plastic coated fabrics. Must have wide experience in the plastic industry with expert knowledge of plastisol formulations and ability to supervise compounding room. Also must be fully experienced with and able to supervise reverse roll coater and 100 ft. fusing oven. Initial salary \$10,000 to \$15,000, depending on experience. Location: Canada. Reply with full details to Box 707, THE CHEMIST.

Polymer Chemist who has worked or wishes to work in designing and formulating resins or vehicles for paint. Position in Eastern Mass. Salary up to \$10,000. Box 91, THE CHEMIST.

Paint Applications Specialist for applying industrial finishes. Some travel. Broad knowledge of modern paint application methods. Location in Eastern Mass. Salary to \$8,500. Box 93, THE CHEMIST.

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By Dr. Rudolph Seiden, F.A.I.C.

Georg Thieme Verlag, Stuttgart: *Methoden der organischen Chemie (Houben-Weyl)* 1/2—*Allgemeine Laboratoriumspraxis*, by E. Mueller; 4th ed., 1052 pp.; DM 196. (in subscription, DM 176.40).—This is the 9th volume of the revised edition of this standard work and the 2nd part of the treatise on general laboratory methods. It deals with such subjects as comminution, mixing, emulsification, and de foaming procedures; dosing of liquids; production; purification, drying and storing of gases; handling of explosives; working with minute amounts under excess pressure, in vacuum, or under exclusion of oxygen and humidity; regulating temperature; purification of organic solvents; and drying agents. The final chapter (56 pp.) discusses prevention of accidents (47 pp.) and cancerogenic substances (9 pp.); 22 experts collaborated on this volume. Its 3-column indexes fill 56 pp. There are also numerous illustrations, tables, and literature references in each chapter, making this volume, like its predecessors, a most up-to-date, most complete, and most dependable reference book.

Verlag Technik, Berlin: *Handbuch des Chemikers, Vol. III*, by B. P. Nikolski; 1959, 984 pp.; DM 50.—The final volume of this Russian handbook for chemists has now become available in German translation. It contains hundreds of tables with thousands of data concerning physical-chemical properties of solutions and alloys, electrochemistry, chemical kinetics, characteristics of important raw materials, laboratory technics, etc. Even the small print is very readable—something noteworthy in a book of this type.

Georg Thieme, Leipzig C 1: *Die Inhalationsbehandlung mit Aerosolen*, by Volkmar and Eva Bochlau; 1958, 260 pp. (30 ill.); DM 21.80.—Discusses aerosols and their uses for inhalation therapy and for other medical purposes. An interesting compilation of proved indications for this new method of drug application.

Walter de Gruyter & Co., Berlin W 35: *Einführung in die höhere Mathematik*, by E. Asmus; 3rd ed., 431 pp. (184 ill.); DM 24.—An introduction into higher mathematics, written for chemists; with numerous examples, problems, and their solutions.

Akademische Verlagsgesellschaft Geest & Portig, Leipzig C 1: *Biochemie der Hormone*, by Th. Bersin; 1959, 350 pp.; DM 27.—A leading Swiss biochemist reviews what is known today about the hormones, chiefly from a biochemist's point of view—their properties in general; the various hormones known at present; and their importance in our lives.

Akademie-Verlag, Berlin: *Einführung in die Petrochemie*, by F. Asinger; 1959; 444 pp. (187 ill., 131 tables).—A book for petrochemists—an introduction into their branch of science and technology. Described are the hydrocarbons and their chemical utilization after chlorination, nitration, sulfochlorination; sulfoxidation, phosphorylation, carboxylation, oxidation, etc.

Wissenschaftliche Verlagsgesellschaft m.b.H., Stuttgart 1: *Arzneispezialitäten nach Indikationsgebieten*, by E. Aye and F. Diepenbrock; 2nd ed., 585 pp.; DM 48.—A listing of the drugs currently manufactured by 220 pharmaceutical firms located in Germany. The material is arranged according to indications. For each of the many thousands of items mentioned, information is given briefly as to composition, manufacturer, uses, and dosage form. A very interesting reference book for pharmaceutical chemists.

Ralph Wechsler, F.A.I.C., president, Nopco Chemical Co., Newark, N. J., announced that David M. Edwards, Cedartown, Ga., was winner of the Charles P. Gulick Scholarship for 1959. The scholarship is awarded annually to the son or daughter of a Nopco employee. **Harry A. Batley, F.A.I.C.**, vice president of Nopco, presented the award.

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Dr. Arnold O. Beckman, Hon. AIC, founder-president of Beckman Instruments, Inc., will receive honorary membership in the Instrument Society of America, during the society's annual banquet in Chicago, Ill., September 23. He is cited for his "long and distinguished career" and "continuing contributions to science, industry and education."

H. Bennett, F.A.I.C., and **E. Rosendahl, F.A.I.C.**, announce that Bennett-Rosendahl Co., Inc., 10 Columbus Circle, New York 19, N. Y., is offering a business advisory service to new and young businesses in the chemical industry.

John M. Jernigan, F.A.I.C., was recently reelected president of Southern Pine Chemicals, Inc., Tuscaloosa, Alabama.



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Dr. Norman G. Gaylord, F.A.I.C., has been elected vice president, research and development, of the Polymer Division of Western Petrochemical Corp., New York 36, N.Y.

Professional Appointments

Sept. 13, 1959. Atlantic City, N. J. Claridge Hotel. East Room, National AIC Council and Advisory Board of THE CHEMIST. Special meeting to discuss plans for THE CHEMIST. Social Hour, 5:30 p.m. Dinner 6:30 p.m.

Sept. 18, 1959. Fiber Products Research Center, Beaver Falls, N. Y. Organizational meeting of the new Beaver Falls Chapter. For information, Clark E. Thorp, President, Fiber Products Research Center, Inc., Beaver Falls, N. Y.

Sept. 26, 1959. Tuscaloosa, Alabama. Stafford Hotel. Alabama AIC Chapter Meeting. Presentation of Honorary AIC Membership to Dr. Jack P. Montgomery, AIC Charter Member, professor emeritus, The University of Alabama.

Sept. 29, 1959. Kansas City, Mo. Rockhurst College. Midwest AIC Chapter meeting. Dinner (cafeteria) 6:30 p.m. Meeting 7:30 p.m. Panel Theme: "Professional Opportunities for Students of Chemistry." Moderator, Dr. A. Ernest MacGee.

Oct. 1, 1959. Chicago, Ill. La Salle Hotel, Parlor F. AIC Board of Directors and National Council. Luncheon meeting. 12 noon.

Oct. 1, 1959. Chicago, Ill. Chicago AIC Chapter Meeting. Presentation of the Honor Scroll of the Chapter to Dr. Johan Bjorksten, F.A.I.C., president, Bjorksten Research Labs., Madison 1, Wis. AIC President, Dr. Wayne E. Kuhn, will present the Scroll.

Oct. 22, 1959. Atlanta, Ga. Piedmont Chapter. First Anniversary Meeting. Speaker, Dr. Wayne E. Kuhn, AIC President.

Nov. 30, 1959. Kansas City, Mo. Rockhurst College. Midwest AIC Chapter meeting. Dinner (Cafeteria) 6:30 p.m. Meeting 7:30 p.m. Annual Elections.

May 11-13, 1960. Minneapolis, Minn. Radisson Hotel. 37th Annual AIC Meeting. The Twin City Chapter will be our host.

May 11-12, 1961. Washington, D. C. Statler Hotel, 38th Annual AIC Meeting. The Washington Chapter will be our Host.

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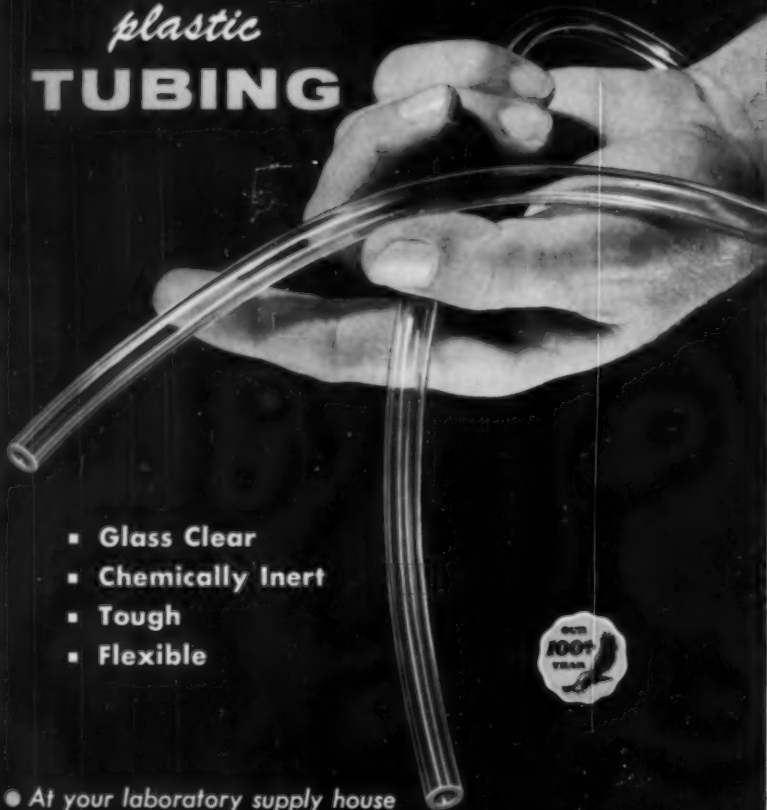
Color.....	light pink
Density—loose weight—lb/cu ft.....	24
Specific Gravity—true.....	2.15
Absorption—% by weight, water	90
Moisture—% by weight, maximum	1.0
Surface Area—sq. m./gm, average	3-5
Adsorption.....	negligible



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